



Oregon

John A. Kitzhaber, M.D., Governor

Lisa

Water Resources Department

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INTEROFFICE MEMO

TO: TRANSFER SECTION

DATE: 2-26-07

FROM: WATERMASTER, DISTRICT #

X GROUNDWATER SECTION

(SIGNATURE)

Jan K. Ball *HLCV* 5-15-2007
date signed 5-2-07

SUBJECT: PERMIT AMENDMENT # 10322

A change in: POU POD POA APOA of water.

In the name(s) of Leo Gentry Wholesale Nursery Inc

In my opinion (assuming the right is valid), the proposed change

MAY BE MADE WITHOUT INJURY right.

WOULD RESULT IN INJURY* to an existing water

*The approval of this transfer application would result in injury to other water rights because X see attached memo

The existing right may not be valid because

Headgate notices HAVE HAVE NOT Been issued for diversion from the source(s) which serve(s) this right.

If for change in point of diversion, is there any intervening point(s) for diversion between the authorized and proposed points of diversion? (Yes or No)

In my opinion, the order approving the subject transfer application should include the following in regard to the appropriator installing suitable measuring devices in the diversion works:

(1) PRIOR to the diverting of water at the new point of diversion . . .

(2) WHEN IN the judgement of the watermaster it becomes necessary . . .

The enclosed copy of the transfer application and map(s) is for your records.



Date: May 15 2007
To: Lisa Jaramillo - Water Right Transfer Section
From: Ivan Gall / Karl Wozniak , Hydrogeologists, Ground Water / Hydrology Section
Subject: Review of Transfer 10322, Leo Gentry Wholesale Nursery
03S/04E-6, 7, and 8

Water Right Summary:

Application: G-15528 Permit: G-15460
First Permit Amendment: T-9594 → Special Order 58-333 (December 10, 2003)
Certificate: N/A
Use: Year-round nursery use on 124.8 acres

Findings

The proposed addition of three POAs to Permit G-15460 may be made without injury if:

- The Application for a Permit Amendment is corrected to show the two authorized POAs, as noted in the discussion section below
- The Application is revised to specify the addition of three POAs, not the replacement or change of the two authorized POAs
- All original conditions on the permit are applied to the new POAs, and
- The order approving the transfer specifies that any new wells that produce ground water from the Columbia River Basalt Group aquifer shall be limited to a single aquifer and shall not simultaneously produce water from the Troutdale or Rhododendron Formations.

Discussion:

This is the second permit amendment application for permit G-15460. The permit originally listed three authorized points of appropriation (POAs). Wells were drilled at the approximate locations of two of these POAs, CLAC 19441/57291 near the location for POA 1 and CLAC 59817 near the location for POA 2. The first amendment, filed under T-9594, resulted in special order 58-333 (December 10, 2003) which replaced the three original POAs with two new POAs (now assigned to Komsart & Jennifer Rattanapai). Unfortunately, the intent of the permit amendment was to add two POAs, as clearly specified in the Application for a Permit Amendment. The current permit amendment, T-10322 (received February 20, 2007), recognizes that only two POAs are now listed on the permit, but incorrectly identifies the authorized locations for these POAs as those specified for POA 2 and 3 on the original permit. T-10322 proposes to change the locations of these two POAs and to add a third POA. This would have the effect of incorrectly removing the only two authorized POAs on the permit, those that are specified on special order 58-333. This problem can be resolved by having the applicant submit a revised Permit Amendment Application that correctly specifies the authorized POAs and that applies for three additional POAs. If these corrections are made and this transfer is approved, the net effect will be to have 5 authorized POAs on the permit, two under the name of Komsart & Jennifer Rattanapai and three under the name of Leo Gentry Wholesale Nursery, Inc. An attached map shows POA locations as proposed on the original permit G-15460 and on permit amendment applications T-9594, and T-10322.

Geologic maps (Trimble, D.E., 1963, Geology of Portland, Oregon and Adjacent Areas: U.S. Geological Survey Bulletin 1119) and an analysis of drill cuttings in well CLAC 59817 (as shown on the USGS website at: http://or.water.usgs.gov/projs_dir/crbg/data/wells/clac_59817/clac_59817_geol.pdf) indicate

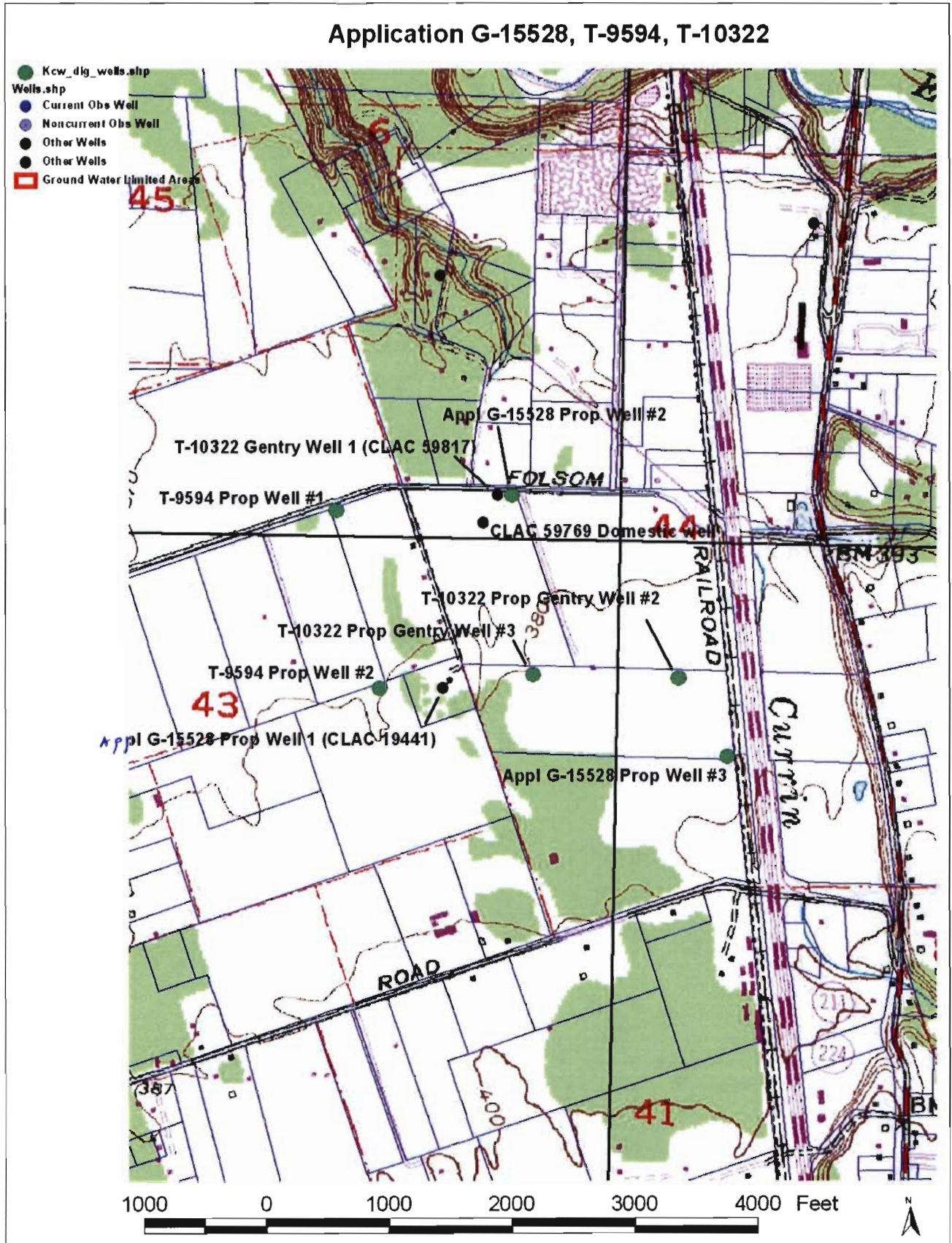
that the area is underlain progressively by the Estacada Formation, the Sandy River member of the Troutdale Formation with a thick interbed of the Rhododendron Formation, and the Columbia River Basalt Group. The well logs for CLAC 19441/57291 and CLAC 59817 show productive water-bearing zones in the shallow and deep part of the Troutdale Formation and several water-bearing zones in the Columbia River Basalt Group. For reasons that are unclear, the driller was allowed to open both the deep Troutdale (at the base of the Rhododendron Formation) and the upper part of the Columbia River Basalt Group in well CLAC 59817. This is not a recommended practice as these water-bearing zones are likely to be relatively isolated under natural conditions such that they will likely have different hydraulic heads and water chemistry. A memo in file G-15528 speaks of similar heads and conductivity in these zones but it is not clear how this could be adequately determined without packing off each zone and sampling them independently. Administrative Rules in the Willamette Basin Program (OAR 690-502) speak to the Columbia River Basalt Group as a distinct source of ground water. This is consistent with our experience in the Willamette Valley. As such, we recommend that any new wells that produce from an aquifer in the Columbia River Basalt Group shall not be allowed to simultaneously produce water from the Troutdale or Rhododendron Formations.

Wells drilled to date suggest that well yields are lower than expected, and multiple wells will be needed to realize the permitted rate of 3.12 cfs. The original application did not propose a specific source but proposed well depths of 400-1200 feet, which encompasses potential completions in the Troutdale, the Rhododendron Formation, or the Columbia River Basalt Group. The subsequent permit was conditioned to allow ground water production from no shallower than 100 feet below land surface to minimize the possibility of interference with nearby streams. Since a source was not specified, new wells on the permit should be allowed to produce from any of these sources as long as they do not produce from water-bearing zones that are shallower than 100 feet below land surface. However, new wells should not be allowed to produce from more than one source at the same time. Information on the well log for CLAC 59817 indicates that significantly lower heads (at least 42 feet) were found in water-bearing zones in the basal Wanapum and Grande Rhonde Basalt sections of the Columbia River Basalt Group compared to water-bearing zones in the upper Wanapum Basalt. This indicates that head differences of greater than 42 feet are likely between shallow and deep water-bearing zones in the Columbia River Basalt Group at this locality. Therefore, to prevent wasteful use of ground water (by bleeding off hydraulic head in zones with different pressures), new wells in the area that produce from the Columbia River Basalt Group should be conditioned to require production from a single Columbia River Basalt Group aquifer only.

Since the proposed wells are not significantly closer than the original permitted POAs to nearby streams, hydraulic interference with local streams is not likely to be increased by the changes proposed on this permit amendment. Therefore, nearby surface water sources should be adequately protected from substantial interference if the new wells are limited to ground water production from no shallower than 100 feet below land surface, as specified on the original permit.

Information on an Extension of Time form in file G-15528, from the Leo Gentry Wholesale Nursery, indicates that CLAC 59817 is the only well that has been used over the years to supply water for irrigated lands listed on the permit. An extension review by the Ground Water Section indicated that the owner had not submitted any of the required water levels on the permit. It is unlikely that any annual reminder letters were submitted to the nursery since 2004 as the well was no longer listed as a valid POA in the Water Rights database as of December 10, 2003, the date special order 58-333 was issued.

Conditions on the current permit require March static-water-level measurements (71) and annual water use reports. These conditions should be applied to all three of the new POAs (as required by the Willamette Basin Program for all new permits that appropriate groundwater from Columbia River Basalt Group aquifers, OAR 690-502-0250).



Prop = Proposed

Geologic Log For Site CLAC 59817

NWIS Site ID: 451937122205201

OWRD Log ID: CLAC 59817

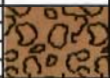
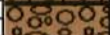
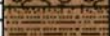




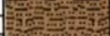

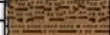
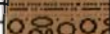
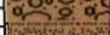

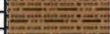
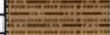
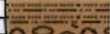
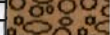


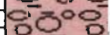
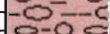
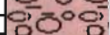

Well location: 03S/04E-08BCA

Depth drilled, in feet below land surface: 1535

Land surface altitude, in feet above Nation Geodetic Vertical Datum of 1929: 388

Logged by: T. L. Tolan

Date drilled: 11/21/2003

Depth	Symbol	Lithologic Description	Elevation	Water Bearing Zones	Geochem Sample	Remarks
0		Estacada Formation boulder-cobble gravel	380			Note: Composite well log derived from wells CLAC 59769 (well 1) and CLAC 59817 (well 2). 341 ft: Top of Rhododendron Formation; unit very deeply weathered from 341 to 490 ft; unit consists of mainly lava flows and minor tuffs interbedded with the Troutdale Formation.
		Troutdale Formation cobble conglomerate	338			
		brown sand	317			
		gray clay				
100		gray-green sandstone with mica	244			
		clayey siltstone with mica	229			
200		gray-green claystone	179			
		cobbly sandstone (gray)	164			
		claystone	149			
		gray-brown sandstone	118			
		multi-colored claystone				
300		conglomerate	66			
		Rhododendron Formation deeply weathered	39			
400		dense interior	-60			
500		dense interior	-110			
		dense interior	-160			
		tuff	-195			
600		Rhododendron Formation dense interior	-220			
			-310			
700			-330	50-60 gpm	722	
		Troutdale Formation gray claystone	-350			
		conglomerate	-380			
800		gray-blue claystone				

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Depth	Symbol	Lithologic Description	Elevation	Water Bearing Zones	Geochem Sample	Remarks
		Wanapum Basalt, Frenchman Springs Member Basalt of Sentinel Gap	-435			815 ft: Top of CRBG; uppermost flow weathered from 815 to 830 ft
		no flow top weathered dense interior dense interior - colonnade	-450		845	Basalt of Sentinel Gap ; very sparsely plagioclase phyric with small phenocrysts; microphyric
		Wanapum Basalt, Frenchman Springs Member Basalt of Sand Hollow	-480		875	
		flow top breccia (weathered) dense interior - colonnade	-500		900	
			-570	100 gpm	920	Basalt of Sand Hollow flow 1 : sparsely plagioclase phyric with large glomerocrysts flow 2 : sparsely plagioclase phyric with large glomerocrysts
		flow top breccia dense interior - colonnade	-585		975	
		interbed - claystone	-646			1025 ft: Interbed <2 ft. thick
		Wanapum Basalt, Frenchman Springs Member Basalt of Silver Falls	-690		1050	Basalt of Silver Falls : plagioclase phyric with large glomerocrysts; abundantly plag. microphyric
		normal flow top dense interior - colonnade	-710			
		Wanapum Basalt, Frenchman Springs Member Basalt of Ginkgo	-710			Basalt of Ginkgo flow 1 : abundantly plagioclase phyric with large glomerocrysts flow 2 : abundantly plagioclase phyric with large glomerocrysts
		flow top (weathered) dense interior - colonnade	-800		1175	
			-815		1215	
		pillow complex	-850		1250	
		Vantage Interbed - claystone	-892			1272 ft: Vantage Interbed approx. 3 ft. thick
		Grande Ronde Basalt, Sentinel Bluffs Member flow 1	-910			Sentinel Bluffs Member flow 1 : aphyric flow 2 : very sparsely plagioclase phyric with small phenocrysts
		weathered flow top dense interior - colonnade	-970	<10 gpm	1340	
		weathered flow top dense interior - colonnade	-980			
		Grande Ronde Basalt, Winter Water Member flow 1	-1030		1400	
		flow top breccia dense interior - entablature	-1055		1435	Winter Water Member flow 1 : plagioclase phyric with small glomerocrysts flow 2 : plagioclase phyric with small glomerocrysts
		dense interior - colonnade	-1075			
			-1085			
		normal flow top dense interior - entablature	-1100			
			-1155		1535	
		TD 1535 ft				